

CLAIMS

1. A polypeptide, derivative or analogue thereof, comprising a tandem repeat of apolipoprotein B or a truncation thereof, characterised in that the tandem repeat or truncation thereof is derived from an HSPG receptor binding region of apolipoprotein B.
2. The polypeptide, derivative or analogue thereof according to claim 1, wherein the polypeptide, derivative or analogue thereof comprises a tandem repeat which is derived from an apolipoprotein B LDL receptor binding domain cluster B.
3. The polypeptide, derivative or analogue thereof according to claim 1 comprising a tandem repeat of apoB₃₃₅₉₋₃₃₆₇ or a truncation thereof.
4. The polypeptide, derivative or analogue thereof according to claim 1 comprising the amino acid sequence of SEQ ID No. 1
5. The polypeptide, derivative or analogue thereof according to claim 3 or 4, wherein at least one of the first, second, third, seventh, eighth, ninth, tenth, eleventh, twelfth, sixteenth, seventeenth or eighteenth residues is substituted or deleted.
6. The polypeptide according to claim 1 of formula:

abcRKRxyza'b'c'RKRx'y'z'

(I)

wherein

a & a' = is independently selected from a positively charged residue, which may be selected from either Arginine (R) or Lysine (K) or Histidine (H); Leucine (L); Tryptophan (W); or is deleted;

b & b' = is independently selected from Leucine (L); Arginine (R); Lysine (K); or is deleted;

c & c' = is independently selected from Threonine (T); Tryptophan (W); or a positively charged residue, which may be selected from Arginine (R) or Lysine (K) or Histidine (H);

x & x' = is independently selected from Glycine (G); Tryptophan (W); Leucine (L); or a positively charged residue, which may be selected from Arginine (R) or Lysine (K) or Histidine (H);

y & y' = is independently selected from Leucine (L); a positively charged residue, which may be selected from Arginine (R) or Lysine (K) or Histidine (H); or is deleted;

z & z' = is independently selected from a positively charged residue, which may be selected from Arginine (R) or Lysine (K) or Histidine (H); or Leucine; or is deleted.

7. The polypeptide, derivative or analogue thereof according to either claim 1 or claim 2 comprising the amino acid sequence: LRTRKGRGRKLRTKRGGRK (SEQ ID No.2); RTRKGRGRKTRKRGGRK (SEQ ID No.3); RTRKGRRTRKGRGR (SEQ ID No.4); LRKRKRLLRKRKRL (SEQ ID No.5); LRKRKRLRKLRKRKRLRK (SEQ ID No.6); WRWRKWRKWRWRKWRKWRK (SEQ ID No.7); RRWRKWRKWRWRKWRKWRK (SEQ ID No.34); KRWRKWRKWRWRKWRKWRK (SEQ ID No.35); LRWRKWRKWRWRKWRKWRK (SEQ ID No.36); HRWRKWRKWRWRKWRKWRK (SEQ ID No.37); RWRKWRKWRKWRWRKWRK (SEQ ID No.38); RRWRKWRKWRWRKWRKWRK (SEQ ID No.39); KRWRKWRKKRWRKWRKWRK (SEQ ID No.40); LRWRKWRKLRWRKWRKWRK (SEQ ID No.41); HRWRKWRKHRWRKWRKWRK (SEQ ID No.42); RWRKWRKWRKWRKWRK (SEQ ID No.43); RWRKGRGRKWRKRGGRK (SEQ ID No.44); RTRKWRKTRKRGGRK (SEQ ID No.45); RWRKWRKWRKWRKWRK (SEQ ID No.46); or RWRKWRKWRKWRWRKWRK (SEQ ID No.47).
8. A polypeptide, derivative or analogue thereof according to any preceding claim for use as a medicament.

9. Use of a polypeptide, derivative or analogue thereof according to any of claims 1 to 7, for the manufacture of a medicament for treating a viral infection.
10. A method of preventing and/or treating a viral infection, comprising administering to a subject in need of treatment a therapeutically effective amount of a polypeptide, derivative or analogue according to any of claims 1 to 7.
11. An agent capable of increasing the biological activity of a polypeptide, derivative or analogue according to any of claims 1 to 7, for use as a medicament.
12. An agent capable of increasing the biological activity of a polypeptide, derivative or analogue according to any of claims 1 to 7, for the manufacture of a medicament for treating a viral infection.
13. A nucleic acid sequence encoding a polypeptide, derivative or analogue according to any of claims 1 to 7.
14. A nucleic acid according to claim 13, for use as a medicament.
15. A nucleic acid according to claim 13, for the manufacture of a medicament for treating a viral infection.
16. A nucleic acid according to claim 13, wherein the nucleic acid comprises a nucleotide sequence as set out as SEQ ID No.8 (apoB₃₃₅₉₋₃₃₆₇), SEQ ID No.9 (GIN 16), SEQ ID No.10 (GIN 35), SEQ ID No.11 (GIN 36), SEQ ID No.12 (GIN 37), SEQ ID No.13 (GIN 38), or SEQ ID No.14 (GIN 33).
17. A method of preventing and/or treating a viral infection, comprising administering to a subject in need of treatment a therapeutically effective amount of a nucleic acid according to any of claims 13 to 16.